NEWS IN School Health

SCHOOL & ADOLESCENT HEALTH

WINTER 1998-99

SCHOOL NUTRITION REVISITED

The 1995 fall issue of *News in School Health* focused on the role of the school in promoting nutrition as a critical component of comprehensive school health. Three years later we again address this issue so essential to each child's growth, development and learning potential. While many of the same problems remain—fast foods, inconsistent eating habits, increased obesity, and a media focusing on unrealistic body image—remarkable changes have occurred.

Through the many efforts of the Nutrition and Physical Activity Initiatives in the Bureau, in collaboration with School and Adolescent Health and the Massachusetts School Nutrition Task Force, nutrition has been brought to the fore in the comprehensive school health programs. The task force is comprised of education and nutrition professionals from a variety of federal, state, and local organizations, as well as the Massachusetts schools. This multi-disciplinary group, chaired by Maria Bettencourt, has as its goal the support of schools in their efforts to integrate nutrition education, programs and services into comprehensive health education, food services, school health service and physical education programs. It has published both a School Nutrition Resource Guide and a Position Statement on Nutrition Programs and Services in Schools.

At the local level the School Health Advisory Councils, required by all schools receiving Health Protection funds, are beginning to model this approach by including food service directors and nutritionists in their membership as partners in comprehensive school health efforts.

These professionals contribute important nutrition expertise to the development of the school's programs. Increasingly the results of these efforts may be observed.

At the school level, the consistent theme is prevention with recognition that schools provide many opportunities to teach nutrition habits and skills useful throughout a School-based, skill building educational lifetime. programs, such as Healthy Choices, a grant program initiated in 1998 by Blue Cross and Blue Shield, the American Heart Association. the Massachusetts Department of Public Health, the Massachusetts Department of Education and Northeastern University's Center for the Study of Sport in Society, are receiving increased attention from both public and private sectors. Nutrition has become a common theme of conversation among children, adolescents and adults. While the media messages as to what constitutes a nutritional diet still may be confusing at times, common threads prevail and have found their way into the daily life of school communities. Messages such as eating sufficient numbers of fruits and vegetables, as well as calcium-rich foods, are becoming commonplace. The same is true of the need for regular physical activity by both students and staff.

As we re-visit nutrition, we can say proudly that we have come a long way—and we can say also that we still have a long way to go.... Thank you.

Anne H. Sheetz, R.N., M.P.H., C.N.A.A. Director, School Health Services

"As schools reshape themselves to meet educational needs of students in the 21st century, they need to recognize their role in health promotion in general and nutritional health in particular." - Position Statement, Massachusetts School Nutrition Task Force

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH BUREAU OF FAMILY AND COMMUNITY HEALTH

GUIDELINES FOR SCHOOL HEALTH PROGRAMS TO PROMOTE LIFELONG HEALTHY EATING

CENTERS FOR DISEASE CONTROL (CDC)

Most young people in the United States are not making healthy eating choices, which puts them at risk for many short-term and long-term health and educational problems. A new CDC report, Guidelines for School Health Programs to Promote Lifelong Healthy Eating, provides schools with the recipe for the most effective policies and educational programs to improve their students' eating habits. Schools are most likely to accomplish this goal, according to the report, if they help children learn skills (not just knowledge) needed to practice healthy eating, give children repeated opportunities to practice healthy eating behaviors, and make nutrition education activities fun. The report is based on an extensive review of research and input from the nation's leading experts in nutrition education.

Healthy eating patterns in childhood adolescence promote optimal health, growth, and intellectual development. Poor eating habits can keep young people from reaching their full potential for learning: for example, studies have shown that skipping breakfast can reduce student scores on problem-solving tasks. Healthy eating patterns can prevent immediate health problems, such as obesity, eating disorders, iron deficiency anemia, and dental caries; and may prevent long-term health problems, such as heart disease, cancer, stroke, diabetes, and osteoporosis.

Unfortunately, most young people in the United States do not have healthy eating habits. More than 84% of children and adolescents eat too much fat, more than 91% eat too much saturated fat, and more than 79% do not eat enough fruits and vegetables. The prevalence of overweight among youths age 6-17 years has more than doubled in the past 30 years,

with most of the increase occurring since the late 1970s.

The good news is that research has shown that well-designed, well-implemented school-based nutrition education programs can improve the eating habits of young people. CDC's *Guidelines for School Health Programs to Promote Lifelong Healthy Eating* summarizes strategies most likely to be effective in promoting healthy eating among school-age youth. The guidelines provide recommendations related to school policy, curriculum, instruction, integration of the food service and nutrition education, staff development, family and community involvement, and evaluation.

According to the guidelines, students need to learn specific nutrition-related skills, such as planning a healthy meal and comparing food labels, as well as general health promotion skills, such as self-assessment, goal-setting, and self-monitoring. Schools should give students opportunities to practice the skills they learn in class by making healthy foods available wherever food is available in schools (e.g., school meals, classroom snacks, parties, meetings, vending machines, and snack bars) and by providing tastes of delicious, low-fat, low sodium foods as part of nutrition lessons.

Copies of the document can be downloaded from CDC's World-Wide Web server at http://www.cdc.gov. (On the CDC Homepage, click on MMWR, then select Recommendations and Reports, then select June 14, 1996). Print copies are available from CDC, Division of Adolescent and School Health, 4770 Buford Highway, Mailstop K-32, Atlanta, GA 30341-3724. ATTN: Resource Room, or by calling (770) 488-5372.

NEWS BRIEFS

CenterCare is a managed care program offered at independently licensed community health centers across the state. Under the program, patients receive primary and preventive health care at no charge. To be eligible you must be at or below 200% of the Federal Poverty Income Guidelines; a resident of Massachusetts; at least 19 years of age; and without any form of health insurance. For more information or to find the nearest community health center please contact the Massachusetts Department of Public Health at 1-800-531-2229.

FREE *HEALTHY CHOICES* **GUIDE** AVAILABLE TO SCHOOLS - *Healthy Choices* is a program that was developed by the Massachusetts Department of Public Health (MDPH) in collaboration with Lawrence Public Schools. This school-based nutrition and physical activity program aims to help students be physically active, choose nutritious foods, and feel good about their bodies. A copy of the manual, *Healthy Choices: A Guide for Designing School-Based Nutrition and Physical Activity Programs*, is available free of charge to Massachusetts' schools interested in developing a program for their students. Please call Julie Robarts at the MDPH (617) 624-5492 for more information.

"Healthy Schools: Designing, Renovating and Maintaining Our School Buildings": Save the date!! (May 26, 1999 at Clark University, Worcester, MA from 8:00 a.m. – 5:00 p.m.). A statewide conference for school and town building committees, site councils, school administrators and faculty, facility managers, physicians and nurses, CHOs, parents, architects and contractors. Professional credits offered. For more information or brochure, call (617) 524-6696 or email: MPHA@state.ma.us

Conference on Public Health Initiatives Targeting School-Age Youth: On April 14, 1998, the University of Massachusetts/Simmons College School Health Institute, in collaboration with the Department of Public Health, will sponsor an information and skills building workshop for nurses on a variety of key public health nutrition initiatives, including osteoporosis prevention, new growth charts, 5-A-Day, physical activity, nutrition screening and assessment, setting up a school-wide nutrition policy, eating disorders prevention and the school cafeteria as a learning lab. See the spring edition of the School Health Institute brochure for further information.

Regional Conferences on Environmental Health: A series of regional conferences entitled "How Healthy Is Your School and What Can You Do about It?" are being planned by the School Health Institute, in collaboration with the Department of Public Health and the federal Environmental Protection Agency. Schools are urged to send teams of staff, e.g., facilities managers and/or custodians, school nurses, administrators, school physicians, etc., to these conferences. See the School Health Institute brochure for dates and locations.

Boston Health Education Mentor Grant: Shirley Handler, Ed.D., M.P.H., and Carmen M. Torres, Ed.D. are the new contacts for the Boston Health Education Mentor grant.

MASSACHUSETTS SCHOOL MEALS: WE SERVE EDUCATION EVERYDAY

By Barbara Ruhs, MS, RD, Nutrition Education & Training Program Coordinator Massachusetts Department of Education

 $S_{
m chool}$ meals serve many roles in our children's education today. The nutrition provided in school meals improves academic performance, supports growth and development, reduces hunger and malnutrition and decreases behavioral problems. Hunger and malnutrition were the issues being addressed in 1946 when the National School Lunch Program Act was enacted. Today, nutrition is a primary focus of school meals, prompted by the national health concerns over the increases in obesity and heart disease. A major turning point for schools meals occurred in 1995 when the Healthy School Meals Initiative was introduced requiring that all school meals are consistent with the Recommended Dietary Allowances (RDA) and the Dietary Guidelines for Americans.

Dietary Guidelines for Americans

- Eat a variety of foods;
- Maintain a healthful weight;
- Choose a diet that is low in fat, saturated fat and cholesterol;
- Choose a diet with plenty of vegetables, fruits and grain products;
- Use salt and sodium only in moderation; and,
- Use sugars only in moderation.

School Nutrition Programs 101

School districts and independent schools that choose to take part in the school meal program(s) receive cash reimbursement and donated commodity assistance from the United States

Department of Agriculture (USDA) for each meal they serve. The Department of Education administers the program in Massachusetts. In return, schools must serve lunches that meet federal nutrition requirements and must offer free and reduced-price meals to eligible students.¹

Nutrition Requirements for School Meals

- Recommended Dietary Allowances (RDA)
 - -1/4 RDA for breakfast
 - -1/3 RDA for lunch
- Calorie and protein -Age appropriate
- Fat <30 % calories from fat, < 10 % calories from saturated fat
- Minimum standards set for specific vitamins -Calcium, Iron, Vitamin A, Vitamin C

In order for the school foodservice programs to obtain reimbursement (Federal/State), they are required to serve certain meal components. These components include milk. fruit/vegetable, meat/meat alternate and a grain/bread. foodservice programs offer meals with each of these components in required amounts in order to meet the Dietary Guidelines and RDA's. Most of the time students have the option to choose their meal but fail to take all of the components of the (reimbursable) meal. For example, every school food service program is obligated to offer fruits and vegetables as a daily choice on their lunch menu, but the reality is that less than 28 % of the students choose to take these healthy foods.² Further investigation found that of those vegetables (cooked) and fruits (fresh) taken by students, 42 and 22 percent respectively, ended up in the trash.² Kids prefer to buy pizza and chicken nuggets, items that appeal to children's appetites.

Foodservice programs need to be progressive to attract their student customers to maintain financial

stability. It is no surprise that school meals are one of the best bargains around. So, many foodservice directors buy very popular items with reduced fat content rather than some traditional items, and they modify the way that they are cooked (baked vs. fried) or served (sauces on the side, lower fat alternatives) in order to meet nutrition standards. Serving healthy school meals is only one part in improving the diet of our children.

The Nutrition Education Team

Nutrition education. involvement/ parent reinforcement, and administrative support of school meals programs are other essential components in improving the diets of our children. Unfortunately, health education, more specifically, nutrition education is not required curriculum in most schools. The choice to neglect nutrition education as a priority in our schools has severe consequences: One quarter of United States' children are overweight (a figure that has doubled in the last decade)³ and 50% of 9-year-old females have dieted.4

In addition to providing nutrition education in the schools, parents need to reinforce positive nutrition messages at home. Many schools encourage parents to join their children for a day at breakfast or lunch. Some schools have Nutrition Committees that assist the foodservice program by offering new ideas or by providing volunteers. In many school districts, the Parent Teacher Organizations sponsor nutrition related events with the school food service.

Finally, administrative help is always essential to a successful school meal program. Administrators can help to promote participation in the programs via teachers, parents and the school board. For more information on how to become more involved in your school's meal programs, please contact the Massachusetts Department of Education, Nutrition Programs and Services at (781) 388 - 3300 x 498 or at our internet web site listed in the graph.

Child Nutrition Web Sites

Massachusetts Dept of Education	http://www.doe.mass.edu
Nutrition Programs and Services	http://www.doe.mass.edu/cnp
Amer. School Food Servs. Assoc.	http://www.asfsa.org/index.htm
Healthy School Meals Res. Sys.	http://schoolmeals.nal. usda.gov:8001/
Team Nutrition &Training Prog.	http://151.121.3.25/teanut/. default.htm
USDA - Food and Nutrition Cen.	http://www2.hqnet.usda.gov/fcs/

- "Healthy Eating Helps You Make the Grade!, USDA's School Meals", United States Department of Agriculture (USDA), New England Regional Office (NERO)
- "Is Your Kid Failing Lunch?," Consumer Reports, September, 1998: 49 - 53.
- Troiano RP, Flegal KM, Kuczmarski RJ, Campbell SM, Johnson CL. Overweight prevalence and trends for children and adolescents. *Arch Pediatr Adolesc Med*. 1995;149:1085-1091.
- 4. Council on Size and Weight Discrimination, 1996.

NUTRITION COUNSELING IN SCHOOLS

By Cynthia Taft Bayerl, RD, MS, Director of Prenatal and Pediatric Nutrition Programs Massachusetts Department of Public Health

What is the role of school nurses, health educators and/or teachers in counseling students about nutrition? The position statement entitled "Nutrition Programs and Services in Schools" written by the Massachusetts School Nutrition Task Force (September 1997) provides guidelines and some practical information on how to integrate nutrition services into your program. A copy of the position paper was sent to all schools. However, if you need additional copies, please call Maria Bettencourt at (617) 624-5440. Integrating nutrition services into schools helps to ensure that the child's nutritional needs are met so that the student can take full advantage of the learning environment. To

optimize the nutritional status of students within schools, four goals are recommended and discussed in the position paper. They are:

- 1. Ensure that children have access to adequate and healthy foods while in school;
- 2. Promote healthy eating patterns through classroom nutrition education coordinated with the comprehensive health education program, including education, health and food service;
- 3. Ensure children have access to appropriate nutrition services; and
- 4. Establish a school-wide nutrition policy that involves input from a wide variety of representatives from the school community.

Where in schools should nutrition services be integrated?

Four areas where nutrition can be integrated include the following:

- nutrition education:
- school meals;
- nutrition services, including screening, assessment, counseling/education, referral and follow-up services; and the
- school community.

How can you integrate nutrition when time is a major factor?

The good news is twofold: First, students of all ages are very interested in nutrition and nutrition-related topics such as eating, exercise, and body image. Secondly, addressing nutrition issues is considered an appropriate role for school personnel and there are many local and statewide nutrition services and nutrition education resources readily available to schools. Briefly, whose role is it to integrate nutrition services into schools? And what are some of the areas where school personnel can integrate nutrition and other interested members of the community? To integrate nutrition effectively requires the combined talents of different personnel within the school community, as well as the community at large. Screening is an important first step to identify all children at nutritional risk. The

should include screening tool standardized questions on various aspects of nutritional status including: heights, weights, anemia, lead levels, food allergies and other special issues related to eating/feeding. The questions should be clear so that a parent/care-provider and the volunteer staff who assist with the screening process can easily complete them. The school nurse should review the responses, and a decision made as to whether assessment. counseling and monitoring nutritional status of that child can be met at the school. A referral(s) may need to be made to an outside provider for those children whose needs are more specialized than can be met by the school. If more in-depth nutrition services are needed, qualified nutritionists are available locally and at pediatric/adolescent facilities, which can be identified by using the web page and hotline number, listed later in this article.

Another way school personnel may integrate nutrition within schools is to *share health and nutrition information*. Classroom teachers, health educators, nurses, and school food service personnel can all participate in this function, which serves to reinforce the overall message. This can be done effectively when staff utilize the nutrition education materials, available at the local, state, and federal levels and which are identified throughout this issue. Last but not least, is the *provision of healthy meals* and messages by the school food service personnel, in order to reinforce the messages learned in the classroom.

Why are students interested in nutrition?

Nutrition is a hot topic. Pick up any magazine for young kids or teens and at least one story will have a focus on one aspect of nutrition or health. Nutrition topics which interest kids can range from, "How does what I eat affect how I look?" to simpler questions such as "What does that food taste like?" and "Why should I eat healthy foods?" Almost all school age consumers are interested in suggestions for tasty and healthy snacks/meals that are easy to prepare. Other students' interests may focus on the

food ingredients --"What is the food made from?" -- while other students focus on the relationship of food to physical performance, and how foods will enhance their brain power and/or on their physical ability on the playing field. With such a wide range of topics, it can be a challenge to be knowledgeable in all these areas. Do not feel you need to be able to address all these issues, as there is an abundance of nutrition information and nutrition education materials available at low cost so that you can have new and interesting information on a variety of topics.

What are some effective ways to share nutrition education materials?

Nutrition education information should be integrated within the curriculum, and shared in a variety of settings such as on bulletin boards, which are frequently updated. These may be displayed within the cafeteria and other gathering places. Use of healthy foods within the cafeteria can be another strategy to model healthy nutrition for the students.

How might you provide one-to-one counseling to students who have been identified at nutritional risk during screening? Extensive one-to-one counseling within the time limits of the school day is a challenge and may not be realistic or needed in some cases. Talk with the student and family to identify what services the student is already receiving and those he/she might need. students who have serious health problems (e.g. cystic fibrosis, diabetes, lactose intolerance, and food allergies) may already be receiving nutrition services as part of their primary care. If the family needs a referral for nutrition services, or you are unsure of what the child needs, communicate with the child's primary care provider to identify the issues and goals of treatment. If treatment includes the school's provision of a special diet or other special dietary considerations such as a special supplement or snack, this should be clearly spelled out by the physician and incorporated into the child's Individual Education Plan (IEP). If nutrition counseling is needed as part of the IEP, the provider of nutrition counseling (e.g. specialty clinic, health center, and/or school personnel) should be identified. If an outside agency will provide the

nutrition counseling, school personnel can support the nutritional goals through the IEP. Please refer to the article on children with special health care needs for a more thorough discussion of children who may have nutritional counseling or dietary needs which must be addressed more extensively in the school setting.

Where can I find a community-based registered dietitians/nutritionist who can provide nutrition services to children and families?

Registered dietitians/nutritionists are qualified providers of nutrition counseling services for children who need in-depth assessment, nutrition counseling and monitoring, which may be too specialized to provide in the school setting.

Registered dietitians/nutritionists who specialize in pediatrics and adolescent health can be located in the following locations:

- Community health centers—most provide services for children and teens:
- Hospitals with pediatric and adolescent services;
- WIC for children under 6 years of age (800-944-1007);
- Growth and Nutrition Clinics for children with growth issues; (See article on children with special health care needs)
- Yellow pages--look for a registered dietitian who provides pediatric services;
- The American Dietetic Association (ADA) the largest professional organization of providers of nutrition/dietetic information has a toll free number (800-366-1655) which has available information about nutrition service providers by zip code and specialty area, such as pediatrics or adolescent care. The same toll free number also has prerecorded messages with hot tips and information on how to order nutrition education materials. The ADA also has a web page (www.eatright.org) which has provider network and other current information.

What are some community resources that offer appealing reasonably priced nutrition education materials?

- School Nutrition Resource Guide, written by the Massachusetts School Nutrition Task Force, lists sources of educational materials on specific nutrition and health topics provided for persons of all ages (free or at reasonable cost). The guide is in the process of being updated. To obtain a copy, call Massachusetts Department of Public Health (MDPH) (617) 624-5438.
- The Massachusetts Prevention Centers (PC) are another good source of health materials. The PCs are located in 10 communities within Massachusetts. They provide services and have a resource loan library. To identify the PC nearest your community, call (508) 875-5419.
- Nutrition Resources for Massachusetts Children and Families produced by the Office of Chronic Disease & Nutrition at MDPH. Call (617) 624-5438.
- Massachusetts Dietetic Association (MDA) is the state affiliate of The American Dietetic Association. MDA has a new campaign with the American Medical Women's Association (AMWA) called "Healthy Advantage: How To Help Your Kids Get the Most Out of School". To obtain a copy of the brochure, call MDA at 1-800-277-5456.
- UMASS Nutrition course offered on line for teachers and extension educators. For more information call (413) 545-4238 or www.umass.edu/contined.
- Massachusetts Department of Education's Nutrition Program and Services provides technical assistance, training and resources to school, childcare and after-school care personnel. For more information call (781) 388-3300 (ext. 498).
 Web page address is WWW. DOE.MASS. EDU.CNT

Integrating nutrition issues into the school day can provide an exciting experience for school personnel as well as for students. When school personnel see the outcome of their efforts to enhance the health of the children they serve, they know they have proven a message that can be the foundation of a lifetime of health for their students. For the students, the ability to have their questions about nutrition and health addressed in a creative integrated way can model

healthy behaviors and a knowledge base for the future. By collaborating with the multiple community resources available to address nutritional and health issues and by utilizing the various sources of nutrition educational materials, the school community can achieve the goals spelled out the position statement on *Nutrition Programs and Services in Schools*.

PROMOTING LIFELONG PHYSICAL ACTIVITY IN SCHOOLS

By Julie Robarts, MS, MPH, RD State Coordinator, Adolescent Nutrition and Health Promotion Massachusetts Department of Public Health

Regular physical activity, like healthy eating, can contribute significantly to the health and wellbeing of a young person. Activities such as active playing, sports participation, calisthenics, walking, and biking, as well as physical chores such as pushing a lawn mower, shoveling, and raking leaves are key to promoting normal growth and development. These activities help to:

- Build healthy bones, joints, and muscles;
- Improve strength and endurance;
- Control weight;
- Reduce anxiety and stress;
- Enhance self-esteem, confidence, and body image; and
- Relieve symptoms of depression in girls.

Regular physical activity, in conjunction with a healthy diet, is key to preventing obesity and osteoporosis. An active lifestyle that begins in childhood can protect an individual from developing chronic diseases such as heart disease, certain types of cancer, stroke, and diabetes later in life.

Unfortunately, the activity levels of Massachusetts youth are less than desirable.

The 1997 Youth Risk Behavior Survey, an anonymous and voluntary statewide survey of

Massachusetts 9th through 12th grade students, reveals some important trends in the physical activity habits of youth.

Many adolescents are not regularly active.

Only 6 in 10 adolescents reported engaging in exercise for at least twenty minutes (that made them sweat/breathe hard) on at least three days in the week preceding the survey.

Many adolescents are not enrolled in physical education (PE) class.

About one-quarter of high school students were not enrolled in a PE class. In addition, less than 15% of adolescents reported attending PE class *daily*.

Physical activity levels decline as adolescents, particularly girls, go through school.

Ninth grade students were more likely than twelfth grade students to participate in all types of physical activities. Male students were more likely than female students to participate regularly in aerobic or strengthening activities.

THE ROLE OF SCHOOLS AND SCHOOL HEALTH SERVICES

There are several roles played by schools and their personnel. Schools can provide opportunities for youth of all ability levels to participate in competitive and non-competitive activities. School nurses, health and physical education teachers, and coaches can help students understand the importance of being physically active. School nurses can fulfill important services such as sports physical requirements, sports injury assessment, and referral when necessary.

WHAT CAN YOU DO?

There are countless ways that the above messages can be translated into everyday practice. Consider the following for your school:

- Start a before- or after-school walking group for staff, parents, and/or students.
- Incorporate daily physical activity into the school breakfast program.

- Create access to non-competitive physical activities such as weight lifting, active playing, or dancing for students not participating in organized sports.
- Organize a wellness program that includes skill building for healthy eating, regular physical activity, stress reduction, and tobacco cessation.
- Offer "stretch breaks" between classes led by teachers, parents, or students.
- Encourage students to walk, bike, or skate to school.
- Participate in National Walk Your Child to School Week or other health observances that focus on physical activity.
- Contact the Massachusetts Department of Public Health at (617) 624-5492 for information on starting a school-based physical activity and nutrition program, such as *Healthy Choices*, at your school.

The Centers for Disease Control has published a report, *Guidelines for School and Community Programs Promoting Lifelong Physical Activity*, which provides guidelines for effective programs. This document can be retrieved in full at http://www.cdc.gov/nccdphp/dash/phactaag.htm

Guidelines for School and Community Programs Promoting Lifelong Physical Activity

Key Principles

- Emphasize enjoyable participation in physical activities that are easily done throughout life.
- Offer a diverse range of noncompetitive and competitive activities appropriate for different ages and abilities.
- Give young people the skills and confidence they need to be physically active.
- Promote physical activity through all components of a coordinated school health program and develop links between school and community programs.

WHAT STUDENT-ATHLETES WANT TO KNOW ABOUT SPORTS NUTRITION

By Allison Brewton-LaClaire, RD Sports Nutrition Specialist New England Baptist Hospital

When I teach high school athletes about sports nutrition, they inevitably ask about gaining weight, losing weight, and enhancing performance. The following tips help athletes address these issues.

Gaining Weight Healthfully

A belief still exists that eating more protein builds muscle, thus achieving weight gain. Intake studies show that high school males already eat enough protein in their diets. Adding extra protein would sacrifice intakes of other nutrients needed for muscle building. Therefore, encourage students who are trying to gain weight to eat more and choose from a variety of foods.

Recommend snacks between meals:

- granola bars
- peanut butter and jelly sandwiches
- yogurt with fruit
- fruit and fruit juices

Unproven Weight-Gaining Supplements:

Companies tout protein powders and amino acid supplements as muscle builders. However, eating fish, chicken, meat, eggs, beans, or dairy products provide cheaper, higher-quality protein and amino acid sources.

Losing Weight Healthfully

Female athletes and athletes in weight-dependent sports, i.e., wrestling, gymnastics, rowing, boxing, figure skating, ask more often about weight loss. Some need it and some do not. The following tips can help the athletes lose fat weight:

- Cut back on "empty calorie" foods like candy, French fries, nachos, alcohol, regular soda, cookies, cakes, pastries, and potato chips.
- (One cookie does not make you fat. Eating the whole bag at once can.) Avoid snacking when not physically hungry.
- Cut back on high-fat condiments like butter, salad dressing, and mayonnaise.
- Eat whole fruits and vegetables instead of juice, which can add a lot of calories without satisfying hunger.
- Check weight once every two weeks, not more often.

Unhealthful Ways to Lose Weight

Skipping breakfast and/or lunch:

- decreases energy required for practice and competitions
- · decreases energy needed to think in school

Drinking diet sodas instead of milk:

- reduces calcium and vitamin D sources
- increases phosphorus that robs bones of calcium

Abusing over-the-counter diet pills

Vomiting after eating (symptom of bulimia)

- decreases intake of important nutrients
- leads to abnormal eating patterns
- · destroys teeth

Enhancing Performance

Despite the claims of nutrition supplement companies, only one nutrient, water, has been shown to dramatically enhance performance. Most athletes do not drink enough water to meet their fluid needs.

To help athletes enhance performance, encourage better fluid intakes:

• Keep athletes well hydrated by encouraging water intake before practice and allow water breaks often during practice (every 15-20 minutes).

• Encourage athletes to drink water after practice to replenish fluids lost during practice.

Unproven Performance Enhancer: Creatine Monohydrate

- It is the most popular supplement this year.
- "In theory" it boosts creatine in the muscle to help fuel exercises such as weight lifting and sprinting.
- There are conflicting results in studies as to its effectiveness.
- Side effects such as muscle cramping, nausea, stomach cramps, diarrhea, and dehydration have been experienced in some athletes.

Fact sheets on Healthy Snacks, Fluids For Fitness, Weight Management, and Creatine Monohydrate are available upon request. Contact:

> Allison Brewton-LaClaire, RD Sports Nutrition Specialist New England Baptist Hospital 125 Parker Hill Avenue Boston, MA 02120 (617) 754-5611

e-mail: Allison.LaClaire@NEBH.org

BUILDING BONES FOR LIFE THE MASSACHUSETTS OSTEOPOROSIS AWARENESS PROGRAM

By Melissa Harrington M. S. Annie Kay, M.S., R.D. Osteoporosis Awareness Program Massachusetts Department of Public Health

Osteoporosis, a preventable condition of porous, easily fractured bones, occurs when the body loses more bone mass than it replaces. It affects over 28 million Americans - 80% of them women. Fractures attributed to osteoporosis number approximately 1.5 million annually, and cost more than \$13.8 billion dollars a year. By the year 2050 (when today's 15-year-olds are retirement-age) estimated annual dollar costs of fractures attributed to osteoporosis are projected at \$240 billion dollars.

Starting early with osteoporosis prevention is our best opportunity to reverse this trend. Taking advantage of the bone building years of childhood and adolescence to help youth reach their greatest "peak bone mass", will provide them protection against osteoporosis later in life. The strong bone proper nutrition (particularly adequate calcium intake), adequate physical activity, and healthy lifestyle choices such as avoiding alcohol and cigarettes.

The current status of bone health behaviors in youth show room for improvement. According to the 1997 Massachusetts Youth Risk Behavior Survey results, two in five students (43%) reported that they were trying to lose weight. Females were far more likely than males to consider themselves overweight (36% vs. 22%), and were nearly three times more likely to be trying to lose weight (63% vs. 23%). Adolescent girls (12-19yr) have the poorest diets of all Americans, and are at most risk for nutritional deficiencies, as documented by the Third Report on Nutrition Monitoring in the United States. The median intake for teenage girls is only about half of the RDA for calcium. The emphasis on thinness, growing patterns of dieting and disordered eating, and declining participation in physical activity, all indicate osteoporosis will continue to grow as a health issue, if action is not taken to reverse these trends.

In 1993, the Department of Public Health initiated the Massachusetts Osteoporosis Awareness Program to raise awareness and educate the public about osteoporosis prevention through the lifespan. The program provides targeted prevention education to children and adolescents, mature women, seniors, and health professionals. Program materials and initiatives useful in teaching children and adolescents the basics of bones are described below.

CHILDREN (ages 6-12) - The Healthy Bones ProjectTM, targets elementary school children aged 7-9 with colorful education materials and programming featuring OliviaTM, a lovable

pinkoctopus. The initiative educates children on building strong bones thorough good nutrition, exercise and healthy lifestyle habits. The program includes "A Kid's Book About Healthy Bones", a 32 page educational coloring book. "Olivia's Adventures, Journey to the World of Healthy Habits", a story for group reading, and a "Passport to Good Health" good habit record. For more information on this project, call the Medical Information Group at (781) 639-4684.

Free osteoporosis education materials for all ages are available through the Health Promotion Clearinghouse, and can be ordered by calling 1-800-95-BONES. The Beautiful Bones brochure and poster deliver nutrition and physical activity information to girls age 9-16 in a hip, lively format.

ADOLESCENTS (age 12-18) - "This is Your Life" is a theatrical health education performance for middle schools, which combines humor and osteoporosis education, produced by Foodplay Production, Inc. This performance addresses the major health concerns affecting today's teenagers, including nutrition, fitness, self-esteem, body image, eating disorders, osteoporosis prevention, tobacco use, and media literacy. The program includes a 45-minute assembly performance and follow-up teacher's nutrition activity guidebook. For more information on the Foodplay, contact Barbara Storper, MS., RD., at 413-585-8400 or e-mail at foodplay@crocker.com.).

The Osteoporosis Community Speakers' Bureau is a bank of clinical experts trained to deliver osteoporosis prevention presentations to adolescents and adults. Presenters may be available for school assemblies, after school programs, or for presentations in the community. For more information on the Speaker's Bureau, call Abbie Atkins at The Medical Foundation, at (617) 451-0049.

OSTEOPOROSIS - It's never too early, and it's never too late to do something about it.

WOMEN, GIRLS & TOBACCO PROJECT Institute for Health & Recovery: Supporting Gender-Specific Interventions Across the State

By Caryn Kauffman, RN, LICSW Institute for Health and Recovery, Cambridge

All of us who are concerned with the health of young people were dismayed to learn recently that smoking among college students has actually increased in the past five years. In addition, girls and young women are now smoking more than their male counterparts, a trend we have also seen among Massachusetts high school students.

How can we understand this phenomenon? After all, most of these young people have participated in learning activities to increase their awareness of the dangers of smoking, have written essays and designed posters, and have told us that they would never smoke. The short answer is that there are many cultural forces that tend to work against our best efforts. This is particularly true for girls.

Why do girls smoke? What do they say? "My boyfriend smokes, so I started smoking with him." "I think it looks sexy." "If I didn't smoke I'd be as big as a house." "I need it when I'm stressed." Girls also acknowledge that they like the tough, independent image that smoking confers. In fact, only a small percentage of girls smoke brands like Virginia Slims, Misty and Capri -- the vast majority smokes Marlboros.

According to Catherine Steiner-Adair of the Harvard Eating Disorders Center, girls between the ages of 5 and 7 come to the realization that what they look like will powerfully impact their social value, and that there is an ideal body type that will lead to success. Advertising messages, which by definition are designed to create an insecurity that a product will cure, encourage girls to aspire to a body size that is unrealistic for more than 90% of

the population. Not surprisingly, studies have found that an alarming number of grade school girls are dieting. Smoking, which acts as an appetite suppressant and as a substitute for eating, is another vehicle used to attain a desired weight.

Many girls say that they smoke to relieve "stress," by which they mean a range of negative feelings, including loneliness. anxiety, depression, frustration, and anger. Young people all experience some degree of distress as they move from childhood to adulthood, but girls are subjected to a range of gender-specific stresses related to role expectations and social position. At the same time, they learn to suppress their voices, and smoking becomes an excellent method of "sucking in" inexpressible thoughts and feelings, as well as a method of self-medication. And it's no wonder girls are attracted to the rebellious image that smoking conveys.

The Women, Girls and Tobacco Project of the Institute for Health and Recovery is funded by the Massachusetts Tobacco Control Program to address smoking by girls and women. The project offers training and technical assistance to providers who work with girls and women in any capacity. Additionally it coordinates a Task Force and an annual spring conference, "New Perspectives on Women, Girls and Tobacco," to address this issue. If you would like to learn more about the Women, Girls and Tobacco Project, contact Caryn Kauffman, RN, LICSW at 617-661-3991 or at tobacco@healthrecovery.org.

ACCOMMODATING NUTRITIONAL NEEDS FOR CHILDREN WITH SPECIAL NEEDS IN SCHOOLS

By Kathy Cunningham, M.Ed, RD Massachusetts Department of Public Health Division for Children with Special Needs

Providing educational opportunities includes accommodating children with special health care

needs (CSHCN) during meal and snack times which supply 2/3 of the child's daily nutritional requirements. Offering appropriate nutrition greatly improves cognition and performance for all children. CSHN have the same nutritional needs as their non-disabled peers; however they may have limitations that prevent them from consuming meals prepared at school for the general population. Meeting these nutritional needs require schools to develop comprehensive plans that comply with federal law section 504 and the National School Lunch and Breakfast Program. This law and school regulation specify that substitutions modifications to the regular meals must be made for children who are unable to eat school meals because of their disabilities. Accommodating CSHCN involves providing services for children who have feeding problems that interfere with the intake of food.

These children often tend to be underweight in proportion to their height and may need increased calories and assistance with feeding. Some may be overweight due to difficulties with motor involvement and excess caloric intake and may need calorie modifications. Other children may have allergies, some life threatening, in which prevention and precaution are the key issues.

If the child's medical statement of dietary need and specific food requests are not clear, staff cannot make substitutions. Schools may obtain assistance on clarification of diet request by utilizing registered dietitians to translate requested food substitutions or modifications into foods available at school or by requesting a list of approved foods from the physician's office. If a child needs assistance around feeding during school time, special education services should be available. For children assisted with medical technology who need assistance (including feeding via gastrointestinal tube), the Massachusetts Department of Public Health (MDPH) MassStart Program can provide support.

For children with allergies including those that are

life threatening, schools should develop precautionary strategies that involve a food avoidance plan. This plan should include guidelines around substitutions for food and snacks throughout the day. The plan should also include periodic review with staff and children around the signs of an allergic reaction, as well as develop key words or phrases that ensure good communication between the child and staff should a problem occur. Additionally, all staff should have clear strategies of "what to do in an emergency." The Massachusetts Regulations Governing the Administration of Prescription Medications (105 CMR 210.000) permits school nurses to teach unlicensed personnel to administer epinephrine by auto injector to students with diagnosed life-threatening allergic This permission is granted provided conditions. the school district is registered for this with the MDPH. (See next article for further information).

Many schools are providing an excellent educational and nutritional environment for CSHCN. For more information on nutrition issues for CSHCN, contact Kathy Cunningham, MDPH at (617) 624-5442. Resources for schools on food allergies are also available through the Food Allergy Network (703) 691-3170 or the Asthma and Allergy Foundation (877) 485-7111.

ADMINISTRATION OF EPINEPHRINE BY UNLICENSED SCHOOL PERSONNEL WITH A DIAGNOSED LIFE-THREATENING ALLERGIC CONDITION

Readiness to respond immediately and effectively to a student's life-threatening allergic reaction is extremely important in the Commonwealth's schools. Recognizing the need for immediate accessibility to epinephrine for these students, the Regulations Governing the Administration of Prescription Medications in Public and Private Schools (105 CMR 210.000) permit school districts to register with the Department of Public Health for the limited purpose of permitting unlicensed School personnel to administer the epinephrine

by auto-jector to **students with diagnosed life threatening allergic conditions**. This may be necessary when a school nurse is not immediately available.

While the exact number of students with lifethreatening allergic conditions in the Commonwealth's schools is not known, anecdotal evidence suggests that the vast majority of school districts have a least one, if not more, students with this condition. Currently 124 school districts and non-public schools are registered with Department for this purpose. (This number includes the schools registered for "full medication delegation.") An estimated 20% of the registrations were initiated by the concerned parent or guardian of a child with a known life-threatening allergic condition. The parent/guardian requests assurance that the school district is prepared to handle an anaphylactic reaction should it occur.

The Department urges all school districts to consider registering to permit unlicensed personnel to be trained to administer this emergency medication. The school nursing leader should plan ahead and anticipate that current and/or future students may need this emergency service and apply to the Department for registration. This will help to avoid any issues relating to last minute application processing delays.

School districts with a full time school nurse (RN) assigned to every school building *may* be in a position to handle a life-threatening allergic condition, provided the nurse is nearby. However, the rapidity with which these reactions occur suggests strongly that each child's situation must be individually assessed. Staff trained to deal with the problem should be available at critical locations throughout the school, including athletic fields and school buses.

It is recommended that school nurses attend the educational program, *Delegation of Medication in the School Setting*, sponsored by UMass-Simmons School Health Institute. For information about this program, please call (508) 999-8249.

School districts wishing to register with the Department should complete the following:

- The school nurse (RN) leader should request an application in writing by mailing the request to:
 Ms. Janet Burke
 Massachusetts Department of Public Health
 School Health 4th Floor
 250 Washington Street
 Boston, MA 02108-4619
 [FAX: (617) 624-5922]
- Please include the school nurse (RN) leader's name, address, phone number and FAX number, as well as the name of the school system or nonpublic school, when requesting an application.
- Complete the application with all required signatures and return to the MDPH. The application will be evaluated and a certificate mailed (valid for a maximum of two school years).

Please contact your School Health Advisor (listed on back page of this newsletter), if you have any questions.

MASSACHUSETTS PARTNERSHIP FOR FOOD SAFETY EDUCATION

By Rita Brennan Olson, M.S. Project Manager

Each year, over 2,000,000 people in the United States become ill from food that has become unsafe; nearly 10,000 deaths result from these diseases. Children, the elderly and people with compromised immune systems are at greatest risk for severe consequences of food borne illness. In 1997, the President's National Food Safety and Quality Initiative called for a farm-to-table approach to food safety education and the formation of partnerships between government, academia, and the private sector to enhance food safety in the United States.

UMass Extension, along with other food safety and organizations, education has convened the Partnership Massachusetts for Food Safety Education. Its mission is to provide consumers and food workers with easy access to food safety education and training through information, collaboration and communication among partners, and coordination of resources and services. This Partnership has set a goal to reduce the risk of foodborne illness in Massachusetts by:

- 1. Improving food safety knowledge and skills among targeted groups;
- 2. Educating target groups in a systematic approach to food safety; and
- 3. Increasing collaboration and communication among partners.

Objectives include developing and disseminating key principles for food safety education, developing a statewide food safety education resource directory and web page, and participating in food safety education campaigns such as Food Safety Education Month and the nationally recognized Fight Bac tm campaign.

Current collaborators with the University of Massachusetts Extension Nutrition Education Program include representatives from Department Massachusetts of Education, Department of Public Health, Massachusetts Division of Food & Drugs, Massachusetts Department of Agriculture, and Office of Elder Affairs, US Food and Drug Administration, United States Department of Agriculture, Massachusetts Health Officers Association. Massachusetts Environmental Health Association, Massachusetts Milk and Food Inspectors, Massachusetts School Food Service Association, Head Start, Massachusetts Food Association, Massachusetts Restaurant Association and the Food Banks of Massachusetts.

Through the Massachusetts Partnership for Food Safety Education, school communities can access food safety information, training and staff development opportunities and resources. The Partnership welcomes new members who are interested and committed to its mission and goal. If you would like additional information about the Partnership and its projects, contact Rita Brennan Olson, M.S., Project Manager, UMass Extension Nutrition Education Program at 413-545-0552 (voice) or ritabo@nutrition.umass.edu

DIETARY SUPPLEMENTS

By Adele Audet Massachusetts Department of Public Health

It has been four years since the Dietary Supplement Health and Education Act of 1994 (DSHEA) was signed into law. DSHEA set new criteria for the definition of a dietary substance. One part states that a dietary supplement includes products intended to supplement the diet and contain one or more of the following: a vitamin, a mineral, an herb or other botanical or amino acid. DSHEA also provided for new safety assurances and evaluations; guidelines for literature displayed where supplements are sold; claims and nutritional support of statements; and labeling requirements. In addition, the federal Food and Drug Administration (FDA) was granted the authority to establish good manufacturing practice (GMP) regulations. However, DSHEA also amended the Food Drug and Cosmetic Act so that dietary ingredients used in dietary supplements are not subject to the premarket safety evaluations that would be required of other new food One estimate claims that chain and ingredients. independent pharmacies sold 1.1 billion dollars of vitamins, minerals, herbs and other supplements in 1997. This figure does not include other outlets including, but not limited to, food and department stores, health food and specialty stores, mail order and internet. Apparently dietary supplements are used and accepted by a significant number of consumers.

How is this impacting children and adolescents who may be consuming dietary supplements that contain ingredients beyond the traditional and familiar vitamins and minerals? These new ingredients are not subject to premarket safety evaluations. Young athletes can be influenced by sports figures that claim that certain dietary supplements are part of their successful regimen. A recent example was the coverage this summer of a baseball player's use of creatinine. Most serious is the suspected association between some stimulant-type dietary supplements used to enhance athletic performance and fatal heart arrhythmia.

Another serious issue relates to alcohol. In 1997 the Department of Public Health and the Alcoholic Beverage Control Commission, in a joint press conference, informed the public about the products availability of ginseng containing unlabeled alcohol. Analysis showed up to 16% alcohol in some samples. Samples were purchased in convenience stores and health food stores and, therefore, were available to children. This unlabeled alcohol could have interacted with prescription medications.

As adults caring for the next generation, we are responsible for obtaining and providing accurate information and taking action where and when appropriate. Many articles on dietary supplements have appeared in the lay press (e.g. April 1998) and peer reviewed Housekeeping, journals (e. g. The New England Journal of Medicine, September 17, 1998). One highly recommended source of information is the FDA's website *vm.cfsan.fda.gov/~dms/supplmnt.html.* Here you will find A FDA Guide to Dietary Supplements, September 1998, written in lay language and a good primer. (If you are selecting from FDA's main page, go to "Foods" and not "Human Drugs.") In addition, adverse events involving dietary supplements reported to the FDA MEDWATCH program are registered with the Special Nutritional Adverse Event Monitoring System (SN/AEMS). This information is available at vm.cfsan.fda.gov/~dms/aems.html. There are four phone numbers available to report an adverse event: (1) FDA at 1-800-FDA-1088, (2) United States Pharmacopoeia at 1-800-487-7776, (3) Institute for Safe Medication Practices at 1-800-324-5723, or

(4) The Massachusetts Department of Public Health, Division of Food and Drugs at 1-617-983-6700. Also, another excellent informational website is the National Institutes of Health's National Center of Complimentary and Alternative Medicine at www.nih.gov/nccam. Phone numbers are: FDA 1-800-FDA-4010 and NCCAM 1-888-644-6226.

Finally, DSHEA sets limits for actions by the federal Food and Drug Administration regarding dietary supplements. Locally, at its 1998 midyear meeting, the Massachusetts Medical Society passed a resolution to encourage public education on the possible risks associated with dietary supplements, improved quality control of manufacturing, accurate labeling and federal standards for evidence of efficacy.

NUTRITION RESOURCES

NATIONAL ORGANIZATION

American Dietetic Association http://www.eatright.org 1-800-877-1600

Eating Disorders Awareness & Prevention http://members.aol.com/edapinc/home.html (202) 382-3587

Anorexia Nervosa and Related Eating Disorders http://www.anred.com (541) 344 –1144

LOCAL ORGANIZATIONS

Stalker Institute of Food and Nutrition; Framingham State College 100 State Street, P.O. Box 9101 Framingham, MA 01701-9101. (508) 626-4756

Stalker's resources, workshops, and classes are available to all people who work with Massachusetts school children -- nurses, teachers,

food service personnel, coaches, trainers, administrators, day care providers, etc. Stalker also has a resource library with over 700 nutrition-related items, including eating disorders that can be borrowed free of charge.

Massachusetts Eating Disorder Association (MEDA);

92 Pearl Street, Newton, MA 02158. (617) 588-1881.

Internet http://www.medainc.org

MEDA has created a curriculum for 7th - 12th grade students, "Body Confidence," which discusses body image, self-esteem, and media literacy. MEDA also offers educational trainings and seminars to help groups understand more about the causes and prevention of eating disorders.

Harvard Eating Disorders Center (HEDC)

356 Boylston Street, Boston, MA 02116 (617) 236-2068

Internet http://www.hedc.org

HEDC promotes awareness and prevention of eating disorders through a variety of initiatives. HEDC offers educational trainings, curricula, and training programs for the public and professionals.

FOODPLAY is an educational nutrition theater and video organization. Creator of the humorous health education production, "This Is Your Life!" which discusses issues surrounding nutrition and physical activity choices, including body image and dieting. Call 1-800-FOODPLAY for more information.

PUBLICATIONS

School Nutrition Resource Guide Massachusetts School Nutrition Task Force, 1997. Call (617) 624-5440 for a free copy.

Planet Health: An Interdisciplinary Curriculum. Part I -- Classroom Lessons School-Based Wellness Initiative Harvard School of Public Health, 1997 (617) 432-1135. Eating Disorders: A Guide for Parents and Teens. Massachusetts Medical Society.
Call Massachusetts Medical Society at (781) 893-4610 to order. FREE

The Comprehensive School Health Manual. Massachusetts Department of Public Health (MDPH)

January 1995 (Your school should already have a copy.) If you would like a copy, please call a School Health Advisor (see back page) at the MDPH's School Health Unit.

Available through retail book stores:

Berg, F, Afraid to Eat: Children and Teens in Weight Crisis, 1997.

Satter, E, How to Get Your Kids to Eat, But Not Too Much, 1987.

Evers, C, How to Teach Nutrition to Kids: An Integrated, Creative Approach to Nutrition Education for Children Ages 6-10, 1995.

Ikeda, JP and Naworski P, Am I Fat? Helping Young Children Accept Differences in Body Size: Suggestions for Teachers, Parents and Other Care Providers of Children to Age 10, 1993.

Available from Gurze Publications at (1-800-756-7533) or http://www.gurze.com Bowen-Woodward, K (PhD), Coping With a Negative Body Image, Gurze Books: CA

Kane, JK (MS, RD), *Coping With Fad Diets*, Gurze Books: CA.

Levine, M (PhD), A 5-Day Lesson Plan on Eating Disorders: Grades 7-12, Gurze Books: CA.

Levine, M (PhD), *How Schools Can Help Combat Student Eating Disorders*, Gurze Books: CA.

SCHOOL-BASED HEALTH CENTERS

- The Department of Public Health statewide School-Based Health Center meetings are
- scheduled for February 2, 1999, April 13, 1999 and June 1, 1999. All meetings are held at the Keefe Technical High School in Framingham. Agendas will be mailed to School-Based Health Centers prior to the meetings. Meetings of the Massachusetts Coalition of School Based Health Centers are held immediately following the Department's meetings.
- The National Assembly of School Health Care will hold its annual meeting 'Sharing Our Voice, Shaping a National Agenda' on June 25-27, 1999. The meeting will be held in Washington, D.C.
- Ruth Soderberg, Director of the Massachusetts Coalition of School-Based Health Centers, was recently selected as Woman of the Year by the Taunton Business Professional Women's Organization. At the award ceremony, Senator Marc Pacheco and Representative James Fagen presented Ruth with a Governor's Proclamation for her dedication and work with School-Based Health Centers, Massachusetts School Nurse Organization and the Massachusetts Nurses Association. Congratulations to Ruth.

Copies of the School-Based Health Center brochure published by the Department are available upon request. Please call Anne DeMatteis at 617-624-5473, if you would like copies of the brochure or more information about School-Based Health Centers.

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The following is a corrected version of an article that appeared in the Fall 1998 edition of **NEWS** in **SCHOOL HEALTH**.

COLLABORATION BETWEEN SCHOOL HEALTH SERVICES AND THE SCHOOL-BASED HEALTH CENTER

By Cecelia Hite, RN, CPNP and Phyllis Pasley-Lomax, RN Boston High School, Boston, MA

School nurses and School-based Health Center nurse practitioner relationships remain, for the most part, challenging and creative.

A collaborative relationship exists at Boston High School (BHS). BHS has an enrollment of 900 to 1000 students and uses the School-to-Career model to prepare graduates for success in a highly competitive society. Since 1989, the Student Health Center (SHC) at BHS, a licensed, satellite clinic of the Division of General Pediatrics and Adolescent Medicine at New England Medical Center, has provided a unique array of comprehensive, coordinated health services for adolescents who are among those at highest risk for adverse health outcomes.

The school nurse and the nurse practitioner recognize the importance of collaboration in improving the quality of care provided to students. The students benefit from this by knowing that there is a health team that is readily available to serve them and to advocate for their health. The level of comfort that exists between the school nurse and the SHC nurse practitioner is based on mutual respect and professionalism.

At times there may be overlapping functions but it is recognized that each role expectation and job description is uniquely different. Each brings to the table her own specific practice knowledge, decision making, and problem solving skills.

Today's adolescents face preventable morbidity, mortality, and poor health habits. Unintentional injuries, homicide, and suicide are leading causes of death. Sexually transmitted diseases, substance abuse, adolescent pregnancy, unhealthy dietary behaviors, and physical inactivity are important causes of physical, emotional and social morbidity. Collaboration yields increased availability and accessibility of health care for youth and provides special opportunities for preventive and health promoting services.

Key components for successful collaboration include:

- Communication
- Accountability
- Mutual respect
- Trust
- Shared planning
- Negotiation
- Belief in each other's competence
- Availability to each other for consultation
- Cooperation in the management and delivery of care
- Working together in a joint professional effort

Collaboration is an essential element of our practice and strengthens the quality of health care to youth, families and to the community.

Given the physical and mental health needs of students, and the increasing responsibilities of schools to address these health needs in a time of declining resources, school nurses and SHC nurse practitioners are in a unique position to set the example. Our working relationship is only a microcosm of the collaborative relationships that need to occur between health care providers, school administrators and faculty, parents, medical affiliates outside the school, and the community.

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